

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-98 (canceled)

Claim 99 (currently amended): ~~The filter media according to claim 79~~ High performance filter media comprising nanofibers of diameter less than 1 μ m incorporated and processed into internal structure of a filter medium dominantly composed of coarse fibers of diameter greater than 1 μ m, said filter media having distally opposite upstream and downstream faces normal to flow therethrough and defining a single layer filter media thickness therebetween, said internal structure incorporating between said faces and within said single layer at least one of the following macrostructures, defined as viewed at magnification of 5 to 50 X, in combination with at least one of the following microstructures, defined as viewed at magnification of 50 to 500 X,

macrostructure A wherein said nanofibers are distributed uniformly throughout said filter media and within said single layer,

macrostructure B wherein said nanofibers are distributed unevenly in bundles providing pockets of nanofibers in a matrix of coarse fibers all within said single layer,

macrostructure C wherein said nanofibers are concentrated at one of said faces and within said single layer,

microstructure 1 wherein said filter media has a nanofiber/coarse fiber interface wherein said nanofibers form bridges across pores between said coarse fibers all within said single layer,

microstructure 2 wherein said filter media has a nanofiber/coarse fiber interface wherein said nanofibers substantially cling onto said coarse fibers all within said single layer,

microstructure 3 wherein said filter media has a nanofiber/coarse fiber interface wherein there is no significant bridging of nanofibers across said pores between

said coarse fibers and no significant clinging of said nanofibers onto said coarse fibers, and instead said nanofibers clump together all within said single layer, and

comprising a trimodal distribution of fiber diameter, all in said single layer, comprising a first set of fibers in the diameter range 50 to 500 nm, a second set of fibers in the diameter range 1 to 5 μm , and a third set of fibers in the diameter range 10 to 50 μm .

Claim 100 (previously presented): The filter media according to claim 99 wherein said first set of fibers is supported by said second set of fibers, and said second set of fibers is supported by said third set of fibers, said first set of fibers providing said nanofibers, said second and third sets of fibers providing said coarse fibers.

Claim 101 (previously presented): The filter media according to claim 100 wherein said second set of fibers comprise a fibrillated para-aramid polymer, and said third set of fibers comprise a cellulose matrix.

Claim 102 (currently amended): ~~The filter media according to claim 79~~ High performance filter media comprising nanofibers of diameter less than 1 μm incorporated and processed into internal structure of a filter medium dominantly composed of coarse fibers of diameter greater than 1 μm , said filter media having distally opposite upstream and downstream faces normal to flow therethrough and defining a single layer filter media thickness therebetween, said internal structure incorporating between said faces and within said single layer at least one of the following macrostructures, defined as viewed at magnification of 5 to 50 X, in combination with at least one of the following microstructures, defined as viewed at magnification of 50 to 500 X,

macrostructure A wherein said nanofibers are distributed uniformly throughout said filter media and within said single layer,

macrostructure B wherein said nanofibers are distributed unevenly in bundles providing pockets of nanofibers in a matrix of coarse fibers all within said single layer,

macrostructure C wherein said nanofibers are concentrated at one of said faces and within said single layer.

microstructure 1 wherein said filter media has a nanofiber/coarse fiber interface wherein said nanofibers form bridges across pores between said coarse fibers all within said single layer.

microstructure 2 wherein said filter media has a nanofiber/coarse fiber interface wherein said nanofibers substantially cling onto said coarse fibers all within said single layer.

microstructure 3 wherein said filter media has a nanofiber/coarse fiber interface wherein there is no significant bridging of nanofibers across said pores between said coarse fibers and no significant clinging of said nanofibers onto said coarse fibers, and instead said nanofibers clump together all within said single layer.

wherein in combination:

said nanofibers are selected from the group consisting of: polymeric materials; ceramic materials; acrylic; nylon; polyvinyl alcohol; polymeric halocarbon; polyester; polyaramid; polyphenylsulfide; cellulose; titania; glass; alumina; and silica; and

said coarse fibers are selected from the group consisting of: polymeric materials; ceramic materials; polyvinyl alcohol; cellulose; acrylic; polyester; polyaramid; titania; glass; silica; nylon; polyphenylsulfide; polymeric halocarbon; and alumina.